United States
Department of
Agriculture

Soil
Conservation
Service

Americus
Plant
Materials
Center

Americus,
Georgia

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Amaquail
thunberg lespedeza

A new lespedeza that's good for quail and resistant to deer browse.

Description of the Variety

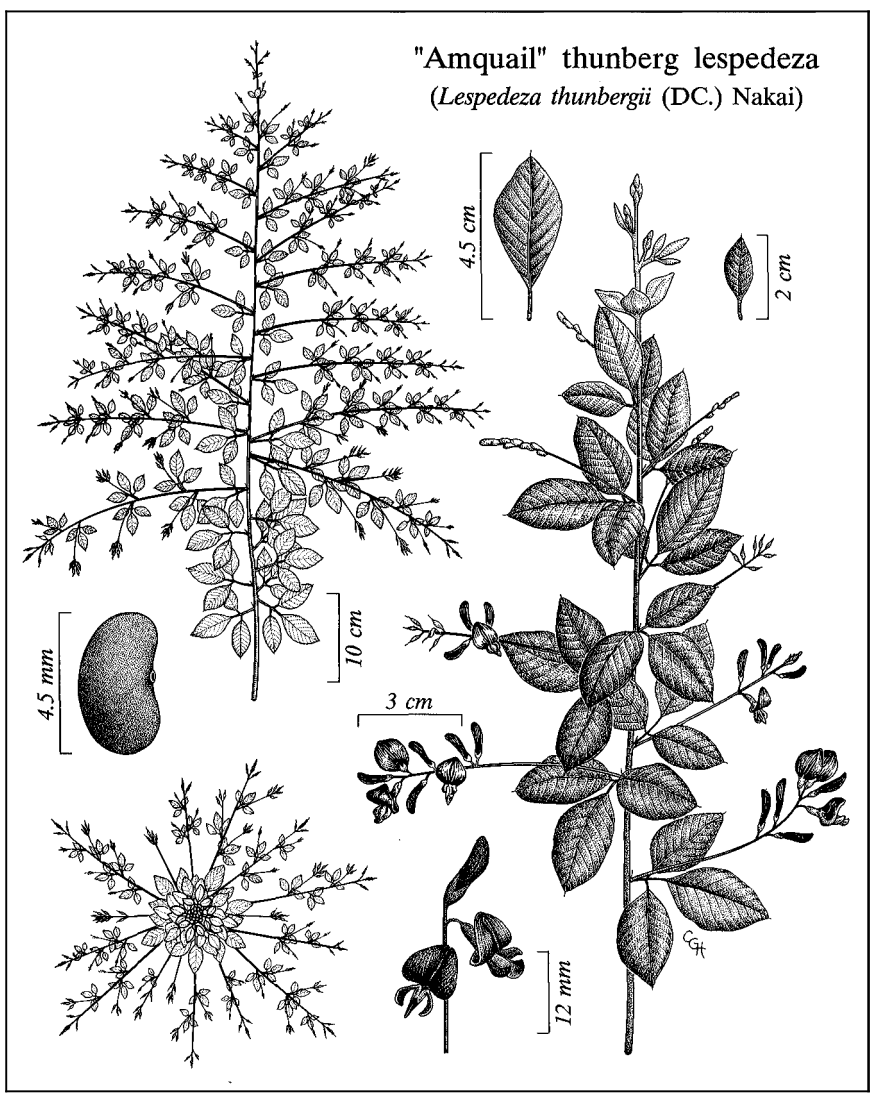
'Amquail' thunberg lespedeza is a perennial warm-season legume that spreads from seed. The characteristics of this variety are somewhat variable. Its height may reach 2 to 2.75 meters.

The plants have multiple stems that rise from a crown-like stump near ground level. Young stems are purplish. The main stem or stump may be as much as 2.5 cm in diameter, depending upon the age of the plant. Individual stems vary from 0.6 to 1.2 cm in diameter. Leaves are trifoliate, and the leaflets are elliptic. The mature leaflets vary in width from 3.25 to 3.5 cm, and their length may be 4.5 to 6 cm.

The flowers are approximately 9 to 15 mm long and are rose-purple. A very low percentage of the plants produce white flowers. A typical Amquail seed production field will contain 10 percent or less of white flowers. The peak bloom at Americus occurs from mid-August to early September. Seed matures in October and early November, which is about 6 to 8 weeks later than the northern variety 'VA-70' ***Lespedeza thunbergii***.

'Amquail' thunberg lespedeza [*Lespedeza thunbergii,* (DC.) Nakai] Reg. no. PI-490362, was developed by the U.S. Department of Agriculture, Soil Conservation Service, Plant Materials Center in Americus, Georgia. The cultivar was released in 1987 as a wildlife improvement plant for the Southeastern United States.

Soil Conservation Service plant materials specialists report that Amquail has higher deer browse resistance than Bicolor lespedeza, a common wildlife plant. Testing of Amquail began in the early 1970's and continued until its release in 1987. It was compared to other L. *thunbergii* collections as well as L. *bicolor* cultivars. Amquail has been tested for deer browse resistance, vigor, seed production, wildlife cover, and bobwhite quail acceptance in 13 field plantings in Georgia, South Carolina, and Alabama.



Adaptation

Amquail is adapted to well drained to somewhat poorly drained **soils.** It is best adapted to the coastal plains of Mississippi, Alabama, Florida, Georgia, South Carolina, and North Carolina. Its full range of adaptability is not known. Amquail has proved to be an excellent wildlife food plant for bobwhite quail.

Breeder seed will be maintained by the Americus Plant Materials Center at Americus, Georgia. Certified seed will be maintained by the Georgia and Alabama Crop Improvement Associations.

Starting at top left and moving clockwise:

- ***full branch***
- ***leaf detail***
- ***detail of side branch with early blooms***
- ***detail of mature bloom***
- ***top end of full branch***
- ***seed detail***

Establishment

Amquail seedlings or seeds should be planted in plots 15 to **20** feet wide and 300 to 400 feet long. An ideal size is 15 feet wide and 330 feet long. A typical plot will contain 6 rows spaced 3 feet apart.

Break and harrow the soil several weeks before planting. This allows rain to settle the soil before planting. The soil should be well prepared but firm.

Apply lime and fertilizer according to soil test recommendations. If a soil test is not made, either:

(1) apply 450 pounds of lime on sandy soils (225 pounds on heavier soils) and 100 pounds of 0-24-**24** fertilizer per plot, or

(2) obtain instructions from your Soil Conservation Service or County Extension office.

Establish wlth Seedlings

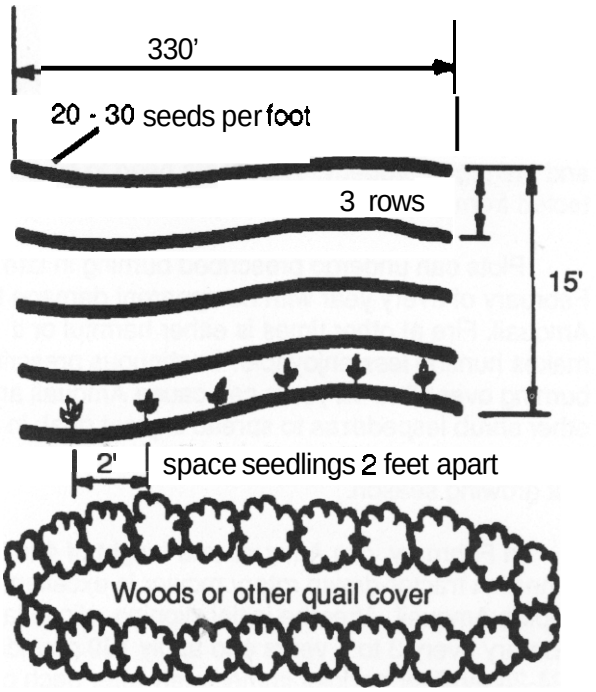
A plot 15 feet wide and 330 feet long will require approximately 1,000 seedlings. Plant one seedling every 2 feet in rows 3 feet apart.

The best time for transplanting seedlings is December 1 to March 1. Acceptable dates are November 15 to March 15. Avoid planting after April 1. Freshly dug seedlings give better results. Therefore, have your soil prepared and plant immediately after obtaining the seedlings. Otherwise, store seedlings in a barn, basement, or other cool, dry place until they can be planted. Avoid "heeling in," which may cause a break in dormancy and result in poor survival.

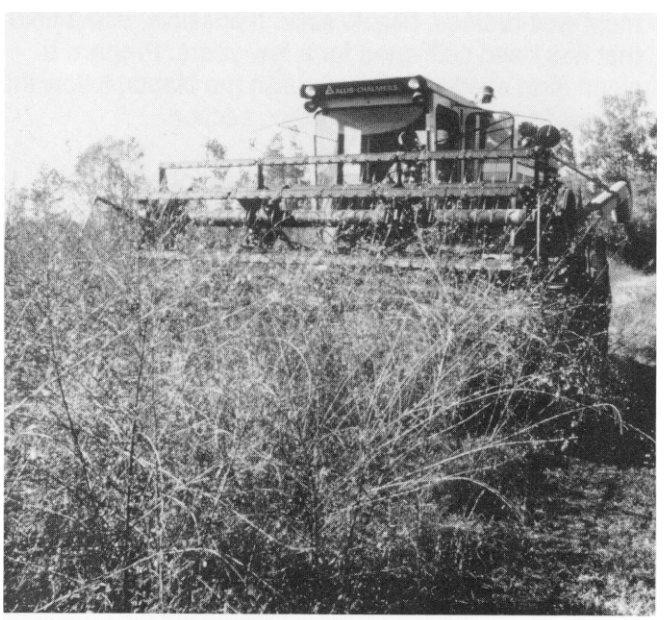
Establish with Seed

Seed may be planted in rows, or they may be broadcast. One pound of scarified seed is needed for each plot planted in rows, using **20** to 30 seeds per foot. Two pounds per plot are needed for broadcast application.

The best time for planting scarified Amquail seed is March 1 to April 15. Avoid planting after May 15. Plant soon after the danger of frost in order to have sufficient moisture for germination and for the first few weeks after the plants emerge. Sufficient soil moisture at planting time and for several weeks thereafter is necessary for success. If moisture is not available at that time, many of the seeds will not germinate and few of the seedlings will survive.



Amquail plots** should **be 15** feet **wide** and 330 feet long. They should contain 6 rows spaced 3 feet **apart.** Plant at **the** rate of **we** pound of **seed. or** 1,000 **seedlings, per plot.



*Harvesting **Amquail seed.***

How to Maintain

Amquail puts forth new growth every spring from roots and stems of the previous year. Plots can be maintained indefinitely when planted on suitable sites and managed properly. The plants need to be protected from grazing by livestock.

Plots can undergo prescribed burning in late February of every year with no apparent damage to Amquail. Fire at other times is either harmful or it makes hunting less enjoyable. Continuous prescribed burning over 10 to 12 years can cause Amquail and other shrub lespedezas to spread a great deal; in fact, they can become pests on heavier soils following the first growing season.

In February, clip Amquail to a height of 4 to 8 inches. A tractor-drawn rotary mower is excellent for clipping Amquail. After the initial clipping, clip in late February every 3 to 5 years and apply 100 pounds of 0-24-24 fertilizer per plot immediately after each clipping. If there is likelihood of excessive browse by dense populations of deer (one or more for every 10 acres), postpone the application of fertilizer until the beginning of the second growing season after clipping.

Availability

The Soil Conservation Service, Americus Plant Materials Center (PMC). Americus, Georgia, is responsible for maintaining the breeder/foundation seed. Limited quantities of the foundation seed will be available to commercial growers through the Americus PMC and the Georgia Crop Improvement Association.

Certified Amquail seedlings are available for purchase by interested landowners from the Alabama Crop Improvement Association, Inc., South Donahue Dr., Auburn University, Auburn, AL 36849; telephone (205) 821-7400 or 826-4952. Contact the association for current price and availability information.

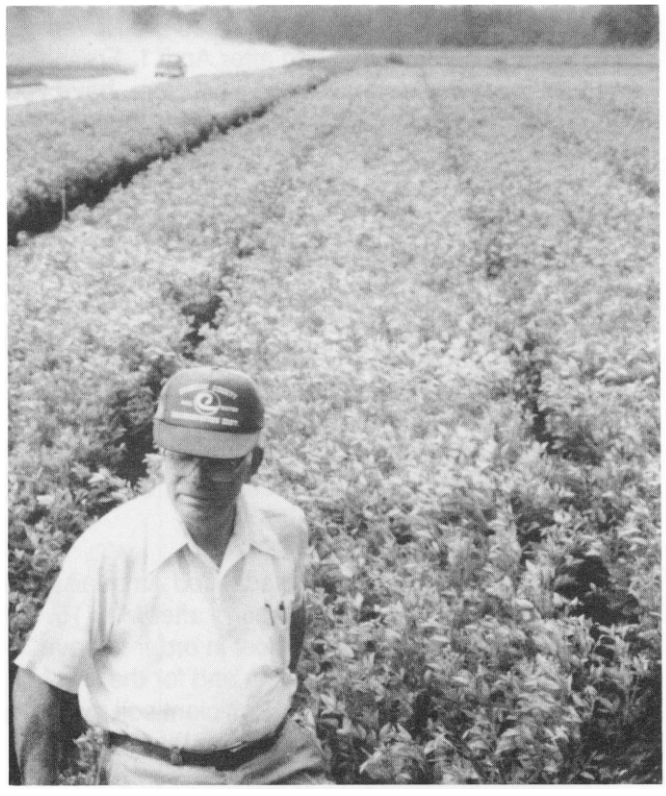
Certified Amquail seeds are not currently commercially available for sale to private landowners. Those interested in purchasing Amquail seed for wildlife habitat management purposes may contact Plant Materials Specialist Donald Surrency at the Soil Conservation Service, State Office, Federal Bldg., Box 13,355 East Hancock Ave., Athens, GA 30601; Telephone (404) 546-2114.

Commercial Seed Production

You can commercially produce Amquail seed on most well-drained, tillable soils. If possible, use a field that has been cultivated for a few years. Prepare a clean, firm seedbed. To establish the plants, follow the directions given in the preceding section.

You can harvest Amquail by direct combining. Combined material should be air dried to prevent heating that could damage the seed.

Each pod harvested will contain a single seed. Seeds are easily removed from the pods. Clean them using standard seed cleaning procedures.



Plots of established Amquail seedlings being grown for commercial seed production in South Alabama.